

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A composition exhibiting vWF protease activity comprising at least one single isolated peptide chain having a molecular weight from about 180 kD to about 120 kD ~~between 190 kD and 100 kD~~ as determined by SDS-PAGE under reducing conditions and comprising the amino acid sequence AAGGILHLELLV (SEQ ID NO 1).
2. (Original) A composition according to claim 1 wherein said sequence is located at the N-terminus of the peptide chain.
3. (Original) A composition according to claim 1 wherein said peptide chain has a molecular weight of about 180 kD.
4. (Original) A composition according to claim 1 wherein said peptide chain has a molecular weight of about 170 kD.
5. (Original) A composition according to claim 1 wherein said peptide chain has a molecular weight of about 160 kD.
6. (Original) A composition according to claim 1 wherein said peptide chain has a molecular weight of about 120 kD.
7. (Canceled)
8. (Original) A composition according to claim 1 wherein said composition cleaves vWF at the peptide bond 842Tyr-843Met.

9. (Original) A composition according to claim 1 wherein said composition retains activity in the presence of a serine protease inhibitor and a calpain protease inhibitor.

10. (Original) A composition according to claim 9, wherein said protease inhibitor is diisopropyl fluorophosphates.

11. (Original) A composition according to claim 9, wherein said calpain protease inhibitor is Z-Leu-Leu-Tyr-CHN₂.

12. (Currently amended) A composition according to claim 1 wherein said peptide chain further comprises the amino acid sequence AVGPDVFQAHQEDTERYVLTNLNI GAELLRDP SLGAQFRVHLVKMVILTEPEGAPNITANLTSSLLSVCGWSQTINPEDDTPG HADLVLYITRFDLELPDGNRQVRGVTQLGGACSPTWSCLITEDTGFDLGVTI (SEQ ID NO 15) following the sequence AAGGILHLELLV (SEQ ID NO 1). (~~AAGGILHLELLV SEQ ID NO 1~~).

13. (Original) A composition according to claim 1, further comprising Ca²⁺, Sr²⁺ or Ba²⁺ ions.

14. (Previously presented) A composition according to claim 1, further comprising Ca²⁺ ions in a concentration of about 1 to 10⁶ per selected polypeptide molecule.

15. (Original) A composition according to claim 1, wherein said composition is essentially free of vWF or vWF fragments.

16. (Original) A composition according to claim 1, further comprising clusterin or an analog or derivative thereof.

17. (Currently amended) An isolated polypeptide exhibiting vWF activity, having a molecular weight between 180 kD and 120 kD ~~100 kD~~ as determined by SDS-PAGE under reducing conditions and comprising the amino acid sequence AAGGILHLELLV (SEQ ID NO: 1).

18. (Previously presented) An isolated polypeptide according to claim 17, wherein said polypeptide comprises the amino acid sequence AVGPDVFQAHQEDTE RYVLTNLNI GAELLRDPSLGAQFRVHLVKMVILTEPEGAPNITANLTSSLLSVCGWSQTI NPEDDTPDGHADLVLYITRFDLELPDGNRQVRGVTQLGGACSPTWSCLTEDTGFDLGV TI (SEQ ID NO 15) directly following the sequence AAGGILHLELLV (SEQ ID NO: 1).

19. (Original) An isolated polypeptide according to claim 18 having a molecular weight of about 170 kD.

20. (Original) An isolated polypeptide according to claim 18 having a molecular weight of about 160 kD.

21. (Original) An isolated polypeptide according to claim 18 having a molecular weight of about 120 kD.

22. (Canceled)

23. (Original) A vWF cleaving complex comprising a polypeptide according to claim 18 and a divalent ion selected from the group consisting of Ca^{++} , Sr^{++} and Ba^{++} .

24. (Original) A vWF cleaving complex according to claim 23 wherein the divalent cation is Ca^{++} .

25. (Currently amended) A vWF cleaving complex ~~comprising a complex~~ according to claim 23, further containing vWF.

26. (Currently amended) A composition comprising a polypeptide according to claim 17. ~~which comprises the sequence AAGGILHLELLV (SEQ ID NO: 1).~~

27. (Withdrawn) Use of a composition according to claim 14 for the development of anti-peptide antibodies or derivatives thereof.

28. (Withdrawn) A method of purifying von Willebrand factor comprising contacting a solution containing von Willebrand factor with a polypeptide substrate comprising the amino acid sequence AAGGILHLELLV (SEQ ID NO: 1) under conditions sufficient to bind von Willebrand factor to the substrate.

29. (Currently amended) An isolated polypeptide ~~A composition~~ according to claim 18, wherein the amino acid sequence is encoded by the polynucleotide set forth in SEQ ID NO: 3.

30. (Previously presented) An isolated polypeptide having vWF protease activity wherein said polypeptide comprises the amino acid sequence AAGGILHLELLVAVGP DVFQAHQEDTERYVLTLNIGAELLRDP SLGAQFRVHLVKMVILTEPEGAPNITANLTSS LLSVCGWSQTINPEDDTPGHADLVLYITRFDLELPDGNRQVRGVTQLGGACSP TWSCL ITEDTGFDLGVTI (SEQ ID NO 4).

31. (Previously presented) An isolated polypeptide according to claim 30 wherein said polypeptide is encoded by a polynucleotide sequence set forth in SEQ ID NO: 3.

32. (Withdrawn) A host cell and progeny thereof containing a polynucleotide according to Fig.2.

33. (Withdrawn) A method for the production of a polypeptide exhibiting vWF protease activity comprising

- growing, in a nutrient medium, a host cell comprising an expression vector comprising, in the direction of transcription, a transcriptional regulatory region and a translational initiation region functional in a host cell,
- a cDNA sequence encoding for a polypeptide according to claim 18, wherein said cDNA comprises the sequence according to Fig. 2 and
- transcriptional and translational termination regions functional in said host cell, wherein the expression of said DNA is regulated by said initiation and termination regions and polypeptide.

34. (Withdrawn) Use of a polypeptide according to claim 18 for the production of a preparation for the prophylaxis or therapy of thrombosis and thromboembolic diseases.

35. (Withdrawn) Use according to claim 35, wherein the disease can be selected from the group consisting thrombotic thrombocytic purpura (TTP), Henoch-Schönlein purpura, preeclampsia, neonatal thrombocytopenia or hemolyticuremic syndrome.